REMARKS

Claims 1-12 are pending and under examination in this application. Entry of the amendments submitted herewith is respectfully requested. It is respectfully believed that the claims are in a position for allowance. Each of the Examiner's concerns raised in the office action mailed March 26, 2008 ("Office Action") are addressed as follows.

I. *Claims are directed to Elected Subject Matter*

The Examiner asserts that claims 4-6 and 10-12 are directed to an ester compound and that as such, the claims are allegedly directed to non-elected subject matter. It is respectfully pointed out that the claims are directed to ester compounds which are pro-drug compounds of the elected Compound J (See, paragraph 0067 of the published version of this application, i.e., U.S. 20060211628A1; note: all references to the specification coincide with the published version of this application). As the specification discloses, such pro-drug compounds can be readily processed to form the elected Compound J (paragraph 0067; Examples 1-2). As such, the claims 1-19 are directed to elected subject matter. Therefore, reconsideration and withdrawal of this objection is respectfully requested. As to claims 8-9, this rejection is rendered moot.

II. *Non-statutory Double Patenting: Claims 1-3 and 7-9*

The Examiner asserts that claims 1-3 and 7-9 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting, as being unpatentable over claims 53 and 57 of U.S. Application No. 10/114,475. As to claims 8-9, this rejection is rendered moot. A deferral for responding to this rejection is respectfully requested until such a time that either the instant claims or the claims of the co-pending application are found allowable.

III. *Claims 1-3 and 7-9 comply with 35 U.S.C. 112, first paragraph*

The Examiner asserts that claims 1-3 and 7-9 allegedly fail to comply with the enablement requirement. This rejection is respectfully traversed. As to claims 8-9, this rejection is rendered moot.

All that is required for enablement, is that "[t]he specification shall contain a written description ... of the manner and process of making and using the invention, in such full, clear,

concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same...." (35 USC 112, 1st paragraph). Contrary to the Examiner's assertions, the specification provides sufficient description and guidance so that one of ordinary skill in the art can practice the claimed methods.

The Examiner has failed to establish a *prima facie* case for lack of enablement. The Examiner does not provided any evidence or reasoned analysis as to why the specification is not enabling. The Examiner states on page 4 of the Office Action:

> "Applicant claims a method of treating Multiple Sclerosis (MS) with antioxidant compounds, however claims 1 and 7 do not specify specific compounds, and the specification never explains how qualities a) thru [sic] c) would result in the ability to treat MS or how the compounds listed in claims 2-3, and 8-9 have the properties claimed in the claims 1 and 7. There is a special lack of direction or mention of how the compounds accumulate within the cytoplasm of cells. Thus applicant has not shown how one of skill in the art could use the invention of claims 1 or 7 to treat, or in the case of claim 7 to prevent, Multiple Sclerosis."

The only reasoning and support for the Examiner's foregoing assertions are presented in the Office Action on page 5 last paragraph bridging to page 6:

> "There is a great deal of experimentation necessary to determine which compounds would satisfy claims 1 and 7(1) and there is a complete lack of direction provided (2), the working examples do not discuss the factors, other than compounds A-L cross the blood brain barrier, and the examples do not address prevention of MS at all (3) and the nature of the invention is treatment and prevention of a complicated disease (multiple sclerosis) with compounds that are not well defined (4) and state of the art is such that treatment of MS is already complicated and unpredictable art and one in which prevention is unknown (5,7). The relative skill of those in the art is high (6), however the breadth of claims is large due to no specific chemical structures being claimed (8)."

With respect to instant amended claim 7 is not directed to "prophylactically treating a subject", thus this ground of objection is rendered moot. The entirety of the Examiner's reasoning and analysis is conclusory, and appears to be misplaced in law and in science. The Examiner appears to take the position that for a method of treatment claim to be enabled, it is necessary to disclose by what mechanism a therapeutic compound functions and how such therapeutics accumulate in "cytoplasm of cells". This is incorrect and irrelevant, because one can practice the claimed subject matter, irrespective of the mechanism of action or how and why the therapeutic compound have therapeutic effect.

Furthermore, the Examiner's attention is respectfully pointed to various portions of the specification which provide guidance, including *in vitro* and *in vivo* examples. The specification sufficiently describes the anti-oxidant compounds throughout (e.g., paragraphs 0068-72; Examples 1-6). Furthermore, the specification teaches *in vitro* anti-oxidation effects (e.g., Examples 7-8). Moreover, the specification teaches therapeutic effect using the standard animal model for Multiple Sclerosis, i.e., experimental autoimmune encephalomyelitis (EAE), upon administration of ester pro-drugs of, and compound J. (paragraphs 0068-0072; Examples 10 and 11). Therefore, in sharp contrast to the Examiner's assertions, the specification provides particular details as to the compounds to be used, as well as the proof of concept *in vitro* and *in vivo.*

In view of the foregoing, this rejection should be reconsidered and withdrawn.

IV. *Claims 1-3 and 7-9 are unobvious over the cited art*

The Examiner asserts that claims 1-3 and 7-9 are allegedly unpatentable over WO 98/29375 ("Atlas") in view of US 6,303,139 ("Passi"). As to claims 8-9, this rejection is rendered moot. This rejection is traversed for the following reasons.

In order to establish a prima facie case of obviousness, the Examiner must demonstrate that the prior art (i) teaches or suggests every claim limitation, (ii) provides a motivation to combine (or modify) the teachings of the selected references, and (iii) provides a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488,20 USPQ2d 1438 (Fed. Cir. 1991); MPEP § 2143. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *KSR Int '1 Co. v. Teleflex Inc.*, 127 S.Ct. 1 727, 1 74 1 (2007) (quoting In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)). Thus, in order to establish a *prima facie* case of obviousness, it is necessary for the Examiner to identify the reasons why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed. The proper analysis when determining obviousness includes consideration of the scope and content of the prior art; the level of ordinary skill in the prior art; the differences between the claimed invention and the prior art; and objective evidence of

non-obviousness. Applicants respectfully submit that there is no motivation to combine the disparate teachings cited by the Examiner in a manner that results in Applicant's claimed invention.

The Examiner asserts that Atlas allegedly discloses N-acetyl cysteine amide for use in treating oxidative stress. Furthermore, the Examiner suggests that Passi discloses that oxidative stress is significantly involved in diseases such as MS. Passi discloses compounds such as ubiquinone, stabilized vitamin E, phospholipids, selenium in an organic form and L-methionine. The Examiner appears to imply that all antioxidants are obvious for use with all diseases where oxidative stress is part of the etiology. It is respectfully pointed out that there would be no expectation of success, commensurate with the examiner's reasoning. As the Examiner acknowledges, Atlas does not disclose treating a subject for Multiple Sclerosis. Furthermore, it follows that given the breadth of the disparate compounds that Passi discloses (i.e., ubiquinone, stabilized vitamin E, phospholipids, selenium in an organic form and L-methionine) as compared to the instant claimed Compound J, there would be no expectation of success, for one to combine the teachings of Atlas and Passi.

As discussed above, the Examiner's attention is respectfully pointed to various portions of the specification which provide guidance, including *in vivo* data. In salient part, the specification teaches and provides data with respect to observed therapeutic effect using the standard animal model for Multiple Sclerosis, i.e., experimental autoimmune encephalomyelitis (EAE). More particularly, upon administration of ester pro-drugs of, and compound J itself, therapeutic benefits were observed (Examples 10 and 11). Therefore, the specification provides particular details as to the compounds to be used, as well as the proof of concept *in vivo*.

In view of the foregoing, this rejection should be reconsidered and withdrawn.

CONCLUSION

In view of the above amendments and remarks it is respectfully submitted that claims 1-7 and 10-11 are now in condition for allowance. A prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,

Martin D. Moynihan
Registration No. 40,338

Date: September 25, 2008

Enclosure:

- Petition for Extension (Three Months)